



**SCHOOL OF ECONOMICS, UNIVERSITY OF NAIROBI & HEALTH POLICY  
PROJECT**

**REPORT OF A TRAINING OF TRAINERS WORKSHOP (TOT) ON THE THEME:  
COSTING METHODOLOGIES AND TOOLS FOR THE HEALTH SECTOR**



**5-8 January, 2015 – Lake Elementaita Country Lodge, Nairobi-Kenya**

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## **Background**

The School of Economics, University of Nairobi in collaboration with the Health Policy Project (HPP) – Kenya organized a workshop for Training of Trainers in Costing Methodologies and Tools for the Health Sector. The training was held from 5<sup>th</sup> to 8<sup>th</sup> January, 2015 at Lake Elementaita Country Lodge. HPP is a five-year cooperative agreement funded by the U.S. Agency for International Development (USAID) and the U.S. President’s Emergency Fund for AIDs Relief (PEPFAR) and contributes to improved health through strengthening the efficiency, effectiveness, and equity of health systems. It is implemented by Futures Group, in collaboration with CEDPA, Futures Institute, Partners in Population and Development, Africa Regional Office (PPDARO), Population Reference Bureau (PRB), RTI International and the White Ribbon Alliance for Safe Motherhood (WRA). HPP supports the government of Kenya to achieve its goals for the health sector which are to provide equitable, affordable, and high-quality services to improve the health of all citizens. HPP focuses on strengthening country ownership; promoting an enabling policy environment; maximizing resources; leveraging partnerships; and, enhancing strategic information and monitoring and evaluation. To ensure long term sustainability in Kenya health policy, HPP is working to build the capacity of local institutions to engage Ministry of Health and other government officials during the decision-making process and lend their voice to formulate policies that ensure equitable access to health services.

Since its inception, HPP activities were to be executed in two phases: Phase I – March 2012-September 2013 and Phase II – October 2013-September 2014. Phase II comprises of five (5) components:

- Component 1 – Facilitate fundamental policies, laws and guidelines flowing from the 2010 Constitution.
- Component 2 – Strengthening GOK for results-based health financing and budgeting.
- Component 3 – Strengthen new national and country health systems in health policy, finance and governance.
- Component 4 – Build capacity of local entities to ensure long term sustainability of health policy formulation.
- Component 5 – Support KEMSA to fulfill its mandate within the devolved environment.

Component 4 aims at strengthening the capacity of selected local agencies to participate in the health policy process and thereby ensure long-term sustainability. This was the basis for the costing workshop whose objective was to build capacity of staff involved in teaching and/or supervising MSc Health Economics and Policy students.

## **Opening and Introduction**

The workshop was opened by the Senior Policy Advisor (HPP/Kenya), Mr. Robinson Kahuthu, who outlined the components of HPP Phase II and highlighted that the workshop was based on component 4. He also noted that component 4 focuses on building capacity of local entities to ensure long term sustainability of health policy formulation. He further noted that the costing training workshop was training for trainers for the members of the Health Economics Unit at the University of Nairobi. Through training efforts targeted at researchers, program managers, or decision-makers, universities can simultaneously build in-country capacity while strengthening their own political influence through partnerships and alumni.

The Director, School of Economics, Prof. Jane Mariara, also welcomed the participants to the workshop. She highlighted the genesis of the collaboration between HPP/Kenya and School of Economics through Mr. Stephen Muchiri who was at the time in the Ministry of Health. First, the School received support from ABT/USAID associates to develop a health economics curriculum. Through this collaboration, the Ministry of Health and ABT/USAID organized a sensitization workshop for health economists. A research methods and training workshop was also held for the health economists. The Director noted that since the launch of the Master of Science in Health Economics Policy programme, the School has received a lot of support for start-up mostly through purchase of books, teaching materials, equipment and sponsorship of masters students. She noted that it is through a capacity needs assessment that led to the current activities. She was grateful for the support the School has received so far from HPP/Kenya and that she looks forward to their continued support and collaboration. She hoped that the knowledge acquired by participants from the training will be put into use in teaching and training health sector practitioners.

The report summarizes key points from each of the four workshop days which focused on costing methodologies at the individual level, at the facility level, and at the health system level. The workshop also focused on the relationship between costing analysis and strategic planning and how to use the OneHealth tool in health sector planning. The report also summarizes the key points to consider when disseminative research results or findings to policy makers. Participants' contributions into some of the sessions have also been summarized in this report.

## **Objective of the Workshop**

The key objective of the workshop was to build the capacity of trainers in the School of Economics in order to equip them with necessary tools that will enable them to develop costing materials for training the Ministry of Health staff including those in the county government..

## **Methodologies Used in the Training**

A mix of methods was used for the Training of Trainers workshop. These were:

- Lecture
- Brainstorming
- Excel-based and software-based activities
- Discussions
- Case studies
- Questions and answers
- Power point presentations

## **Summary of Presentations**

### ***Day 1: Health Service Cost Analysis***

#### **Nicole Perales - Establishing a Framework for Costing Methodologies in the Health Sector**

Key issues covered

The key points of the presentations were as follows:

- What is required to achieve better health outcomes
- What is costing
- Importance of costing
- The role of costing in the policy continuum
- Costing Methods
- The process of cost analysis and economic evaluation
- Health service costing: fully loaded unit costing at the facility-level - health service cost structure; standard of care versus reality; multiple treatments of single conditions; economies of scale.
- Nicole gave an example for costing analysis on the cost of providing oral pre-exposure to prevent HIV infection among sex workers in Kenya.

#### **Dr. Daniel Mwai - Maximizing Efficiency: Methods for Improving Technical Efficiency.**

Key issues covered:-

The highlights for the presentation were as follows:-

- Definitions of efficiency
- Achieving allocative efficiency
- Increasing functional or technical efficiency
- Importance of efficiency
- Comparing costs of different programs

- Examples of best practices - efficiencies in HIV programs and efficiencies in training of healthcare workers

**Nicole Perales – Combining Costing and Impact Modelling: Combining measures of cost and impact to inform health policy**

Highlights of the presentation:

- Recap on definition of efficiency – allocative efficiency
- A closer look at costing methods – which method is most appropriate for what intervention.
- Using cost effective analysis – comparing a set of interventions to another set of interventions.
- Process of cost analysis and economic evaluation – steps 4 and 5.
- Impact modeling – approaches, threshold of cost effectiveness.
- Example on impact modeling – ART for HIV prevention using the Goals Model.

***Day 2: Strategic Planning Cost Analysis***

**Nicole Perales – Evolution of Strategic Plan Costing: Moving from activity-based costing to OneHealth Tool (OHT)**

Key issues covered

- Identifying financial gaps – given the gap, why cost?
- Current state of costing
- Costing strategic plans – approaches; using costing to evaluate cost-effectiveness.

**Nicole Perales - Health program costing OneHealth Tool (OHT): Morbidity-based costing of health services and program management support activities in strategic planning**

Key issues covered:-

- History of OHT
- What is OHT
- Who is to use OHT
- Determining the cost of interventions – preventive or treatment interventions
- Determining the target coverage – public sector (including FBO) or the private sector
- Collecting targets – based on SMART activities
- Examples of results produced through OHT
- Practical strategic planning using OHT – software-based exercise
- Excel-based costing for strategic plans

### ***Day 3: Advanced Health System Cost Analysis***

#### **Nicole Perales – Advanced Methods in HIV: Forecasting and Quantification of HIV-related commodities**

Key issues -

- commodity costing (CC)
- Purpose of CC
- Review of Methodologies: strategic plan costing – purpose, results, tool.
- OHT example – commodity costing
- Systematic quantification process – morbidity-based approach
- Challenges with forecasting and quantification of HIV-related commodities
- ARV Methodologies
- Example on linking costing and procurement plan

Dr. Julius Korir – Dynamic Costing Model (DCM): Alternative Methods and Data

Key issues covered:-

- History of DCM
- Approaches to costing using DCM – facility-based costing; dual approach to costing
- Framework of DCM
- Ownership in DCM
- DCM facility types
- DCM assumptions
- DCM in Kenya
- Data for DCM
- Excel-based exercise – DCM model

#### **Nicole Perales and Dr. Urbanus Kioko – Cost of County Health Services: Comparing potential approaches through OHT and DCM**

Key issues covered:

- Comparative analysis – DCM & OHT: differences and similarities
- Prioritizing at the county level is a major issue
- Not previous costing in the previous strategic plans
- There is need to know to what extent have resources been transferred to the county level
- Capacity is lacking in devolved functions on health care services even with the availability of resources
- Devolution happened without proper systems



- Issues in devolved health services – planning processes, legal processes and implementation processes

### **Thomas Maina – Principles of Universal Health Coverage**

- Key issues covered:-
- What is Universal Health Coverage (UHC)
- How the UHC ‘cube’ represents coverage – breadth of coverage, depth/scope of coverage, height of coverage.
- Effective coverage model - What determines effective coverage; how to collect data to measure effective coverage.
- Entitlements versus reality
- Comprehensive versus basis package
- UHC for MDGs and sustainable development dialogue
- Achieving UHC when resources are limited
- Benefit package: - what is a benefit package (a) to the purchaser, and (b) to the client/patient; who is covered in a benefit package; who offers a benefit package; types of benefit package; what determines the components of a benefit package; trade-offs with regard to benefit package design.
- Example – How Ghana rationalizes its benefit package.
- Financing UHC: Costing of UHC

### ***Day 4: Costing in Health Financing and Policy***

#### **Thomas Maina - Health Budget Tracking: Approaches to National and County Level Budget Tracking and its Importance**

Key issues covered:-

- Objectives of the county budget analysis
- Budget share between the national level and county level
- County Health Recurrent and Development budgets
- County Health Allocations

#### **Nicole Perales – Expenditure Analysis: Methods for financial data analysis, retrospective analysis**

Key issues covered under the session

- Definition of expenditure analysis
- Methods of expenditure analysis

- Existing tools for expenditure analysis in Kenya
- Steps in expenditure analysis
- Data collection for expenditure analysis
- Example – case study on PEPFAR
- Challenges in expenditure analysis

### **Monicah Wanjiru – Results Communication and Dissemination: How to Create Visually Appealing and Effective Advocacy Messages**

Key issues covered under the session

- Results generation process.
- Challenges to researchers when it comes to research dissemination
- Challenges to policy makers
- Results/consequences of challenges faced
- Driving factors in policy decisions

### **Thomas Maina – Linking Research and Policy**

Key issues covered under the session

- How to increase the likelihood for utilization of research findings
- Examples from case studies on abolition of user-fees and free maternity health care policy
- Users of research findings
- Identification of research problems
- How and when to involve users
- Developing research recommendations
- Challenges involved in involving policy makers
- Case studies on health financing and policy – Abolition of User fees and free maternity health care policy.

### **Monica Wanjiru – Developing a Communication Plan**

Key issues covered under the session

- Essential factors in communication planning

- Objectives

- Target Audiences
  - Appropriate Channels – appropriate channels for policy makers
  - Assess feedback
- Delivering the communication plan

### **Overall observations of the TOT workshop**

- The participants noted that getting the right data for the costing process is a major challenge.
- The other challenge is that when you talk about costing, people think that you want to do an audit. They agreed on the fact that good costing personnel are required and they should understand the treatment process.
- The participants recommended that there should be user-friendly costing materials that any person can understand. The costing materials should have simplified costing guidelines.
- Challenges that are being faced at the county level are not captured in the Constitution of 2010 Kenya and the Health Policy.
- There is need for services to be harmonized at both the national and county levels.
- There is need to address the friction
- County governments have demonstrated willingness to be supported. The County Council of Governors is willing to listen on issues concerning health services reforms
- The counties need technical people for programme budgeting
- There is need to link objectives to output and strategic plan costing
- Counties should determine indicators to see if the systems are working well
- County Executives should be more technical rather than political
- Counties are just ‘reinventing the wheel’ – Kenya has not had a standard health system.
- Important questions should be asked before costing for health services – the need for capacity building, consensus and when to cost.
- Programme budgeting is recommended for counties
- It is important to involve facility committees who are responsible for budgeting of funds while costing

## ANNEXES

### Annex 1: Programme for Training of Trainers Workshop in Costing Methodologies and Tools for the Health Sector

TIME	ACTIVITY	FACILITATOR
<b>DAY 1: HEALTH SERVICE COST ANALYSIS</b>		
08:45-10:15	<b>Introduction:</b> <i>Establishing a framework for costing methodologies in health</i>	Nicole Perales (HPP)
10:15-10:30	<i>Tea/Coffee</i>	
10:30-12:00	<b>Health Service Costing:</b> <i>Fully loaded unit costing at the facility-level</i>	Nicole Perales (HPP)
12:00-13:30	<i>Lunch</i>	
13:30-15:00	<b>Maximizing Efficiency:</b> <i>Methods for improving technical efficiency with examples from the HIV response</i>  <i>Discussion-based exercise</i>	Daniel Mwai (HPP)
15:00-15:15	<i>Tea/Coffee</i>	
15:15-16:45	<b>Combining Costing and Impact Modeling:</b> <i>Combining measures of cost and impact to inform health policy (i.e. Cost Effective Analysis, Cost Benefit Analysis, Allocative Efficiency, etc.)</i>	Daniel Mwai and Nicole Perales (HPP)
<b>DAY 2: STRATEGIC PLANNING COST ANALYSIS</b>		
08:45-9:00	<b>Evolution of Strategic Plan Costing:</b> <i>Moving from activity-based costing to One Health Tool</i>	Nicole Perales (HPP)
9:00-10:15	<b>Health Program Costing (One Health Tool):</b> <i>Morbidity-based costing of health services and program management support activities in strategic planning</i>	Nicole Perales (HPP)
10:15-10:30	<i>Tea/Coffee</i>	

10:30-12:30	<b>Health Systems Cost Analysis (OneHealth Tool):</b> <i>Costing Human Resources, Logistics, Governance, and Infrastructure, and full time equivalent analysis for strategic planning</i>	Nicole Perales (HPP)
12:30-13:30	<i>Lunch</i>	
13:30-15:00	<b>OneHealth Tool Software:</b> <i>Results analysis and hands-on practice</i>  Software-based exercise	Nicole Perales (HPP)
15:00-15:15	<i>Tea/Coffee</i>	
15:15-16:45	<b>Excel-based Costing for Strategic Plans:</b> <i>Exploring custom tools for strategic planning</i>	Nicole Perales (HPP)
<b>TIME</b>	<b>ACTIVITY</b>	<b>FACILITATOR</b>
<b>DAY 3: ADVANCED HEALTH SYSTEM COST ANALYSIS</b>		
08:45-10:15	<b>Advanced Methods in HIV:</b> <i>Forecasting and quantification of HIV-related commodities</i>  Excel-based activity	Nicole Perales (HPP)
10:15-10:30	<i>Tea/Coffee</i>	
10:30-12:00	<b>Dynamic Costing Model:</b> <i>Alternative methods and data collection to estimate the cost of the Health System</i>	Dr. Urbanus Kioko (UON) and Julius Korir
12:00-13:30	<i>Lunch</i>	
13:30-15:00	<b>Cost of County Health Services:</b> <i>Comparing potential approaches through OneHealth Tool and Dynamic Costing Model</i>  Discussion-based activity	Dr. Urbanus Kioko (UON) and Nicole Perales (HPP)
15:00-15:15	<i>Tea/Coffee</i>	
15:15-16:45	<b>Principles Universal Health Coverage and Implications for Cost:</b> <i>Considerations in projecting the cost of UHC and financial gap analysis</i>	Thomas Maina (HPP)

DAY 4: COSTING IN HEALTH FINANCING AND POLICY		
08:45-10:15	<b>Health Budget Tracking:</b> <i>Approaches to national and county level budget tracking and its importance</i>	Thomas Maina (HPP)
10:15-10:30	<i>Tea/Coffee</i>	
10:30-12:30	<b>Expenditure Analysis:</b> <i>Methods for financial data analysis</i> Excel-based activity	Nicole Perales and Dr. Urbanus Kioko (HPP)
12:30-13:30	<i>Lunch</i>	
13:30-15:00	<b>Health Policy and Financing:</b> <i>Exploring best practices and limitations in using costing to inform policy and decision-making</i>	Stephen Muchiri (HPP)
15:00-15:15	<i>Tea/Coffee</i>	
15:15-16:45	<b>Results Communication and Dissemination:</b> <i>How to create visually appealing and effective advocacy messages</i> Interactive activity	Nicole Perales and Monica Wanjiru (HPP)

**Annex 2: List of Participants**

<b>No.</b>	<b>Name</b>	<b>Organization &amp; Position</b>
1.	Prof. Jane Mariara	Director, School of Economics – University of Nairobi
2.	Dr. Urbanus Kioko	Senior Lecturer, School of Economics – University of Nairobi
3.	Dr. Moses Muriithi	Senior Lecturer, School of Economics – University of Nairobi
4.	Dr. Julius Korir	Lecturer, Kenyatta University
5.	Dr. Elizabeth Owiti	Lecturer, School of Economics – University of Nairobi
6.	Dr. Diana Kimani	Lecturer, School of Economics – University of Nairobi
7.	Dr. Daniel Mwai	Lecturer, School of Economics – University of Nairobi
8.	Dr. Scholastica Achieng	Lecturer, School of Economics – University of Nairobi
9.	Ms. Elizabeth Owino	PhD Student, School of Economics – University of Nairobi
10.	Mr. Michael Ndwiga	PhD Student, School of Economics – University of Nairobi
11.	Nicole Perales	Health Scientist, Health Policy Project
12.	Thomas Maina	Health Policy Project-Kenya
13.	Mr. Robinson Kahuthu	Senior Policy Advisor, Health Policy Project-Kenya
14.	Mrs. Naomi Gatere	Finance and Administration Manager, Health Policy Project-Kenya
15.	Mrs. Monica Wanjiru	Communications Advisor, Health Policy Project-Kenya
16.	Ms. Faith Mutuku	Secretariat, School of Economics – University of Nairobi